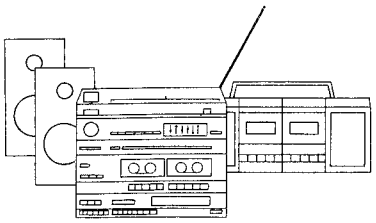
NOKIA
CONSUMER ELECTRONICS



TB

1991

Service-Manual

ITT NOKIA Recorder SL 837 AV Stereo

⚠ **Sicherheitsbauteil!**
Dieses Symbol kennzeichnet in den Schaltbildern alle Bauteile, die nur durch Originalteile ersetzt werden dürfen.

Bei Reparaturen gültige Sicherheitsvorschriften beachten!

⚠ **Safety Component!**
This symbol identifies in the circuit diagrams all safety critical parts. Replace only with specified part numbers.

Service and repair work to be performed only in accordance with existing safety regulations!

⚠ **Composant de protection!**
Ce symbol indique tous les composants dans les schémas,
qui doivent être remplacés uniquement par des pièces d'origines.

Pendant le dépannage respecter les régulations du sécurité!

Änderungen vorbehalten
Modifications reserved
Modifications réservées

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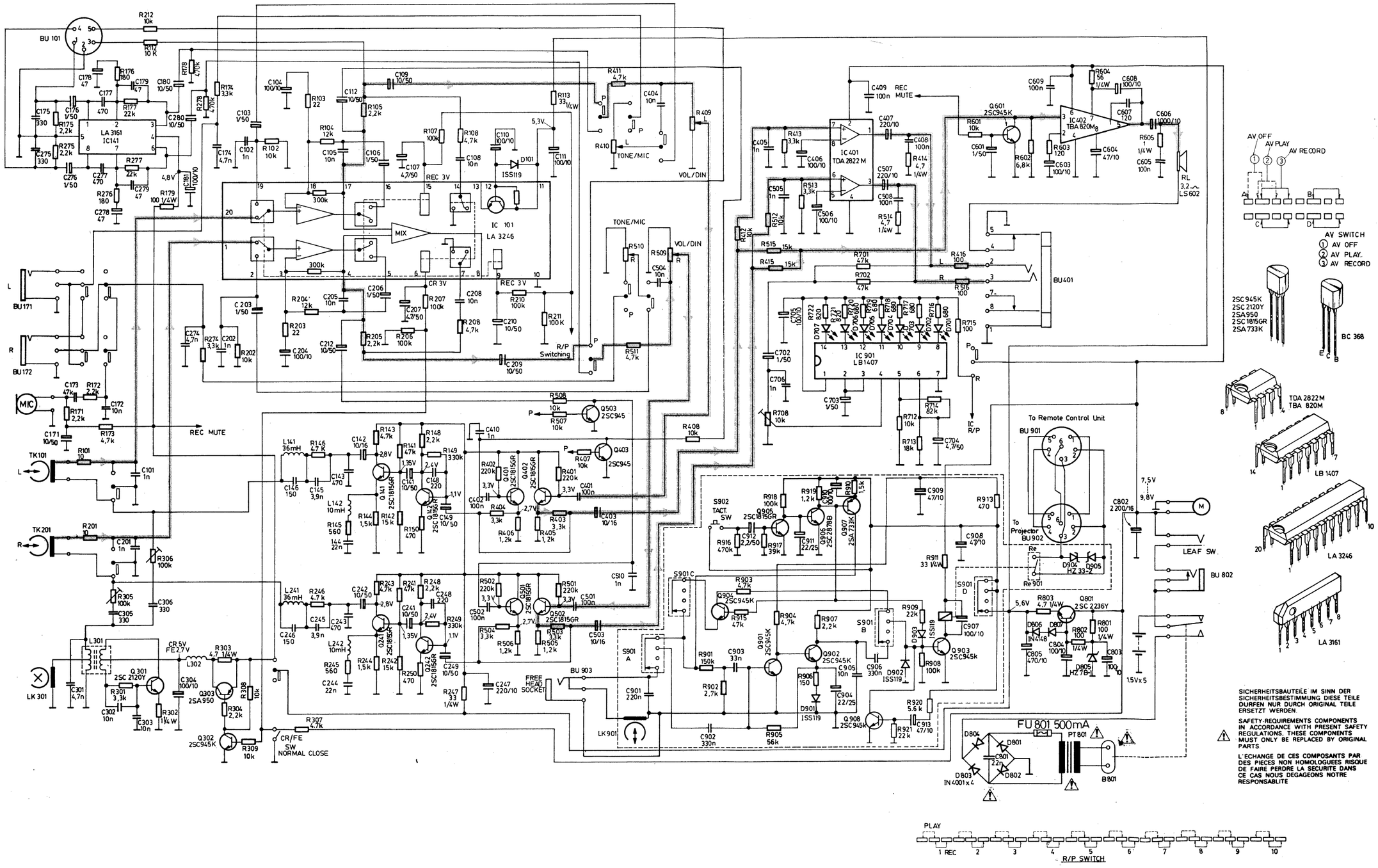
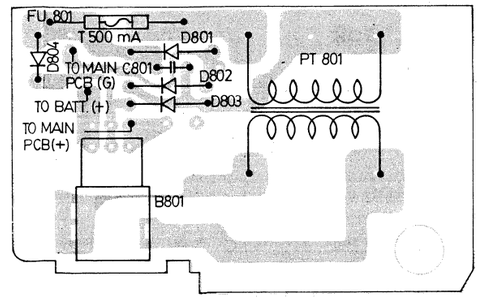
6611 16 42
(927 VE)


BU 101
LA 3161
IC141
IC 101
LA 3246
MIX
REC 3V
R/P Switching
TONE/MIC
VOL/DIN
REC MUTE
IC 401
TDA 2822 M
IC 901
LB1407
IC R/P
BU401
BU171
BU172
MIC
TK101
TK201
LK 301
L301
Q301 2SC 2120Y
Q303 2SA 950
Q302 2SC945K
CR/FE SW NORMAL CLOSE
BU 903
FREE HEAD SOCKET
LK 901
S901 A
S901 B
S901 C
S901 D
S902 TACT. SW
Q901 2SC945K
Q902 2SC945K
Q903 2SC945K
Q904 2SC945K
Q905 2SC1815GR
Q906 2SC2878
Q907 2SA733K
Q601 2SC945K
Q801 2SC 2236Y
To Remote Control Unit
BU 901
To Projector BU902
Re
Re 901
D904 HZ 33-2
D905
LEAF SW.
BU 802
RL 3,2 LS602
FU 801 500mA
PT 801
B 801
D803 IN 4001 x 4
AV OFF
AV PLAY
AV RECORD
AV SWITCH
1 AV OFF
2 AV PLAY
3 AV RECORD
2SC 945K
2SC 2120Y
2SA 950
2SC 1815GR
2SA 733K
BC 368
TDA 2822M
TBA 820M
LB 1407
LA 3246
LA 3161
PLAY
1 REC
R/P SWITCH
SICHERHEITSBAUTEILE IM SINN DER SICHERHEITSBESTIMMUNG DIESE TEILE DURFEN NUR DURCH ORIGINAL TEILE ERSETZT WERDEN.
SAFETY-REQUIREMENTS COMPONENTS IN ACCORDANCE WITH PRESENT SAFETY REGULATIONS. THESE COMPONENTS MUST ONLY BE REPLACED BY ORIGINAL PARTS.
L'ECHANGE DE CES COMPOSANTS PAR DES PIECES NON HOMOLOGUEES RISQUE DE FAIRE PERDRE LA SECURITE DANS CE CAS NOUS DEGAGEONS NOTRE RESPONSABLITE


FU 801
T 500 mA
D804
D801
TO MAIN PCB (G)
C801
D802
D803
TO BATT.(+)
TO MAIN PCB(+)
PT 801
B801

1. Tape Speed Check

Connect DC power supply 7.5V ± 2% to the set.

Connect VTVM and frequency counter via DIN plug (pin 3/5)

Play test tape MTT 211 3150Hz.

Check tape speed should be 3150Hz ± 1% .

Check wow + flutter should be less than 0.3% .

2. Azimuth Alignment

Connect VTVM as per (1)

Clean the R/P head and erase head with soft cotton soaked with alcohol.

Play test tape (TEAC MTT 114).

Adjust R/P head screw for maximum out for L and R channel.

Apply appropriate glue to fasten the screw.

3. Bias Voltage Alignment

Turn rec level control to minimum.

Connect VTVM to R 101 for L channel and R 201 for R channel.

Insert blank Cr tape and press play and record button.

Adjust R 306 and R 305 to obtain 5.6mV ± 0.2mV for L and R channels respectively.

Check frequency should be 69kHz ± 5kHz.

Remove Cr tape to exchange with Fe tape (or activate aut Cr SW manually) to check Fe bias voltage 3.6mV ± 3mV.

4. Record LED Adjustment

Connect VTVM to output cap C 407/507 for L and R channel respectively. (headphone loaded 16 ohm)

Input 2mV 1kHz signal via DIN plug 1/4.

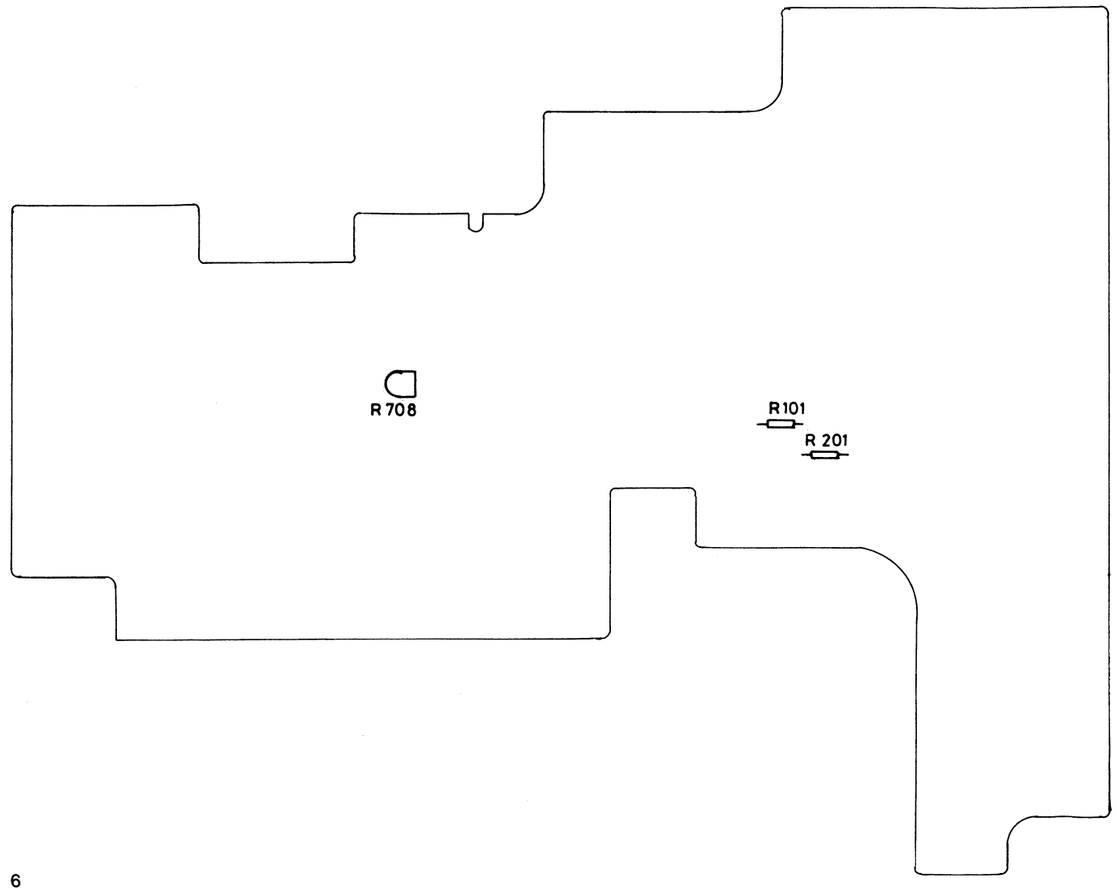
Turn mic level control to minimmum.

Turn DIN level control to obtain 1.2V at VTVM.

Adjust R 708 to light up all green LED but just turn off 2nd last LED (red).

Turn DIN level control to minimum or remove signal input.

Confirm all LED turn off.

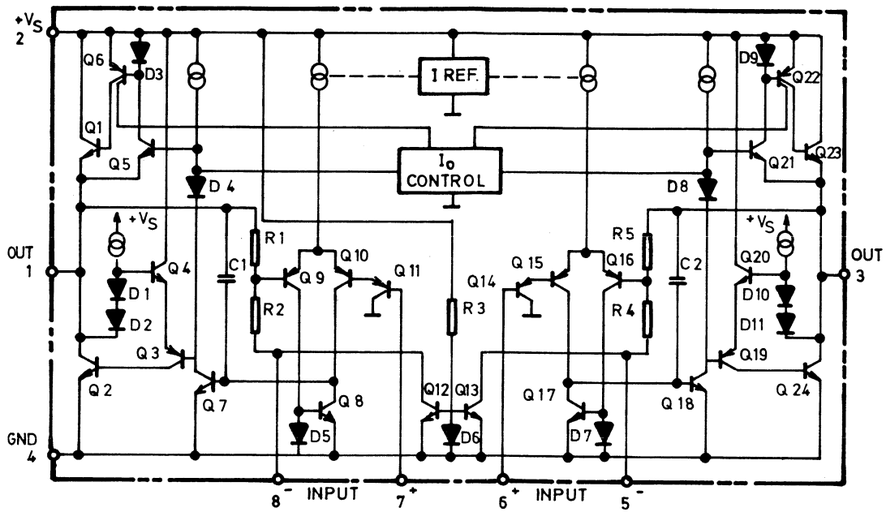


Pos.-Nr. Ref. No. No. de pos.	Gegenstand Description Description		Bestell-Nr. Part No. No. de comm.
Integrierte Schaltungen **Intgrated Circuits** **Circuits intégrés**			
IC 101	IC LA 3246		3768 98 54
IC 141	IC LA 3161		3768 98 29
IC 401	IC TDA 2822 M		3763 12 48
IC 402	IC TBA 820 M		3768 12 21
IC 901	IC LB 1407		3768 98 30
Transistoren **Transistors**			
Q 141	2 SC 1815 GR		3612 41 20
Q 142	2 SC 1815 GR		3612 41 20
Q 241	2 SC 1815 GR		3612 41 20
Q 242	2 SC 1815 GR		3612 41 20
Q 301	2 SC 2120 Y,C		3614 75 02
Q 302	2 SC 945 K		3614 75 03
Q 303	2 SA 950 Y		3614 52 07
Q 401	2 SC 1815 GR		3612 41 20
Q 402	2 SC 1815 GR		3612 41 20
Q 403	2 SC 945 K		3614 75 03
Q 501	2 SC 1815 GR		3612 41 20
Q 502	2 SC 1815 GR		3612 41 20
Q 503	2 SC 945 K		3614 75 03
Q 601	2 SC 945 K		3614 75 03
Q 801	2 SC 2236 Y		3614 45 67
Q 901	2 SC 945 K		3614 75 03
Q 902	2 SC 945 K		3614 75 03
Q 903	2 SC 945 K		3614 75 03
Q 904	2 SC 945 K		3614 75 03
Q 905	2 SC 1815 GR		3612 41 20
Q 906	2 SC 2878 B-T		3614 52 94
Q 907	2 SA 733 K		3614 55 18
Q 908	2 SC 945 K		3614 75 03
Dioden **Diodes**			
D 101	1 SS 119 B		3656 33 72
D 701	LED SLP 155 B-51		3681 17 92
D 702	LED SLP 155 B-51		3681 17 92
D 703	LED SLP 255 B-40		3681 17 93
D 704	LED SLP 255 B-40		3681 17 93
D 705	LED SLP 255 B-40		3681 17 93
D 706	LED SLP 255 B-40		3681 17 93
D 707	LED SLP 255 B-40		3681 17 93
D 801	1 N 4001		3657 11 05
D 802	1 N 4001		3657 11 05
D 803	1 N 4001		3657 11 05
D 804	1 N 4001		3657 11 05
D 805	HZ 7 B-1		3656 33 73
D 806	1 SS 119 B		3656 33 72
D 807	1 SS 119 B		3656 33 72
D 901	1 SS 119 B		3656 33 72
D 902	1 SS 119 B		3656 33 72
D 903	1 SS 119 B		3656 33 72
D 904	HZ 33-2		3656 33 74
D 905	HZ 33-2		3656 33 74
Spulen **Coils** **Bobines**			
L 141			4543 36 79
L 142	10 MH		4543 21 41
L 241			4543 36 79
L 242	10 MH		4543 21 41
L 301			4543 36 80
L 302			4543 36 81
Potentiometer **Trimmer Resistors** **Potentiometres**			
R 305	100 k		3111 86 58
R 306	100 k		3111 86 58
R 708	10 k		3111 86 59
R 410	50 k		3112 98 42
R 409	50 k		3112 98 42
Buchsen **Sockets** **Commutateurs**			
BU 101			4144 82 87
BU 171			4144 82 91
BU 172			4144 82 91
BU 401			4144 82 89
BU 802			4144 82 88
BU 901			4144 82 86
BU 902			4144 82 86

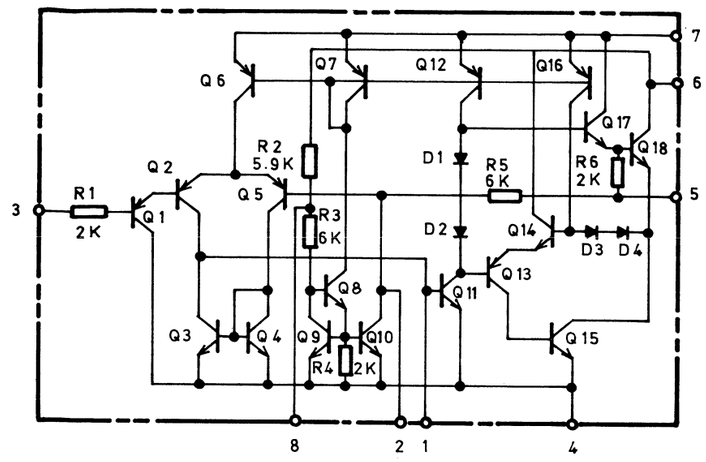
Pos.-Nr. Ref. No. No. de pos.	Gegenstand Description Description		Bestell-Nr. Part No. No. de comm.
Schalter **Switches** **Commutateurs**			
S 901			4112 98 57
S 902			4112 98 58
Sicherung **Fuse** **Fusible**			
FU 801	0,5 A/T		4375 10 13

Gegenstand Description Description	Bestell-Nr. Part No. No. de comm.
Allgemeine Bauteile **General Parts** **Pléces générales**	
Bedienungsanleitung Operating Instruction Mode d'emploi	6612 56 76
Verpackungskarton Packing Case Carton d'emballage	6162 86 90
Verpackungspolster Front Cushion Ass'y Front Coussin d'emballage de face	6172 08 80
Verpackungspolster hinten Cushion Ass'y behind Coussin d'emballage d'arriére	6172 08 81
Netzkabel Mains lead Câble de réseau	4147 01 26
Sicherungshalter Fuse holder Porte-fusible	4157 05 03
LED-Halter LED-Holder LED-Support	8681 46 33
Netzbuchse Mains socket Prise secteur	4234 70 17
Relais Relay	4124 10 41

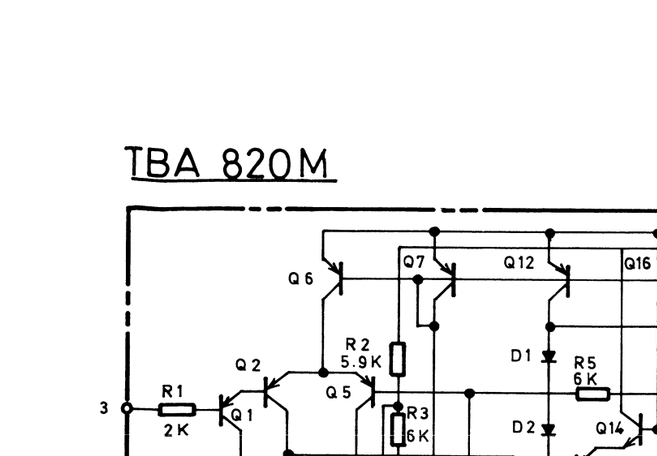
TDA 2822 M



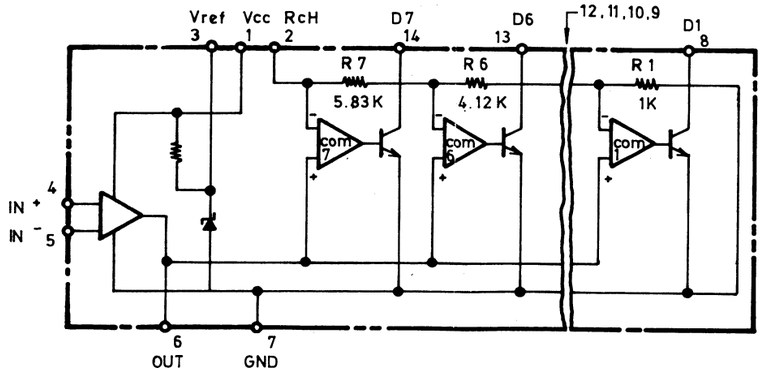
TBA 820 M



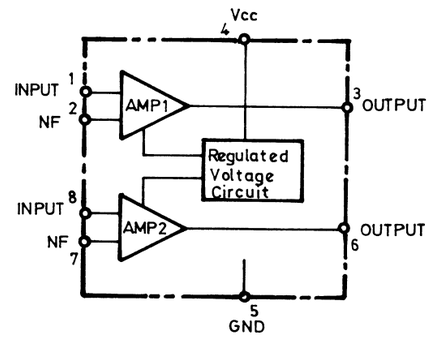
LA 3246

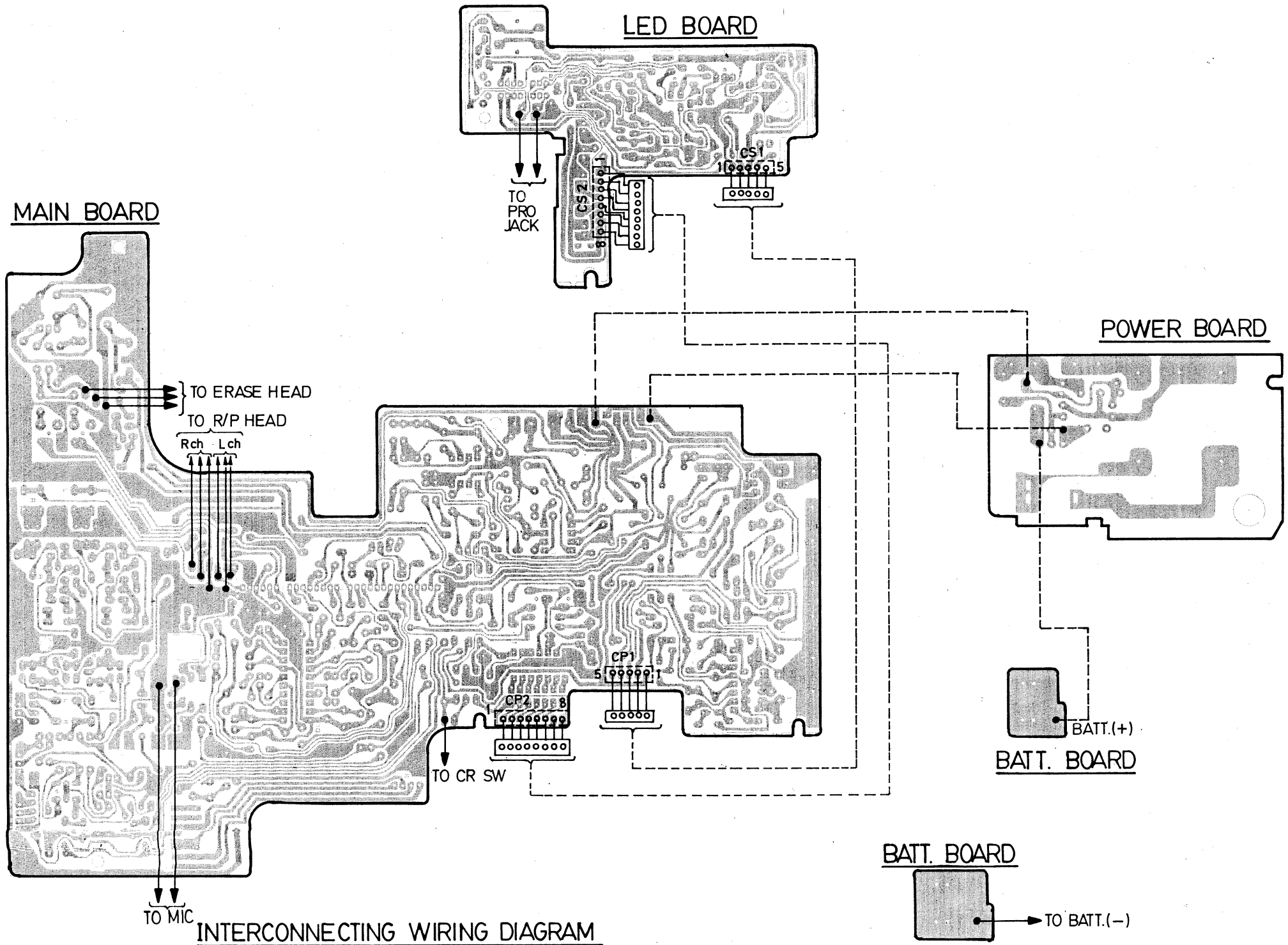


LB 1407

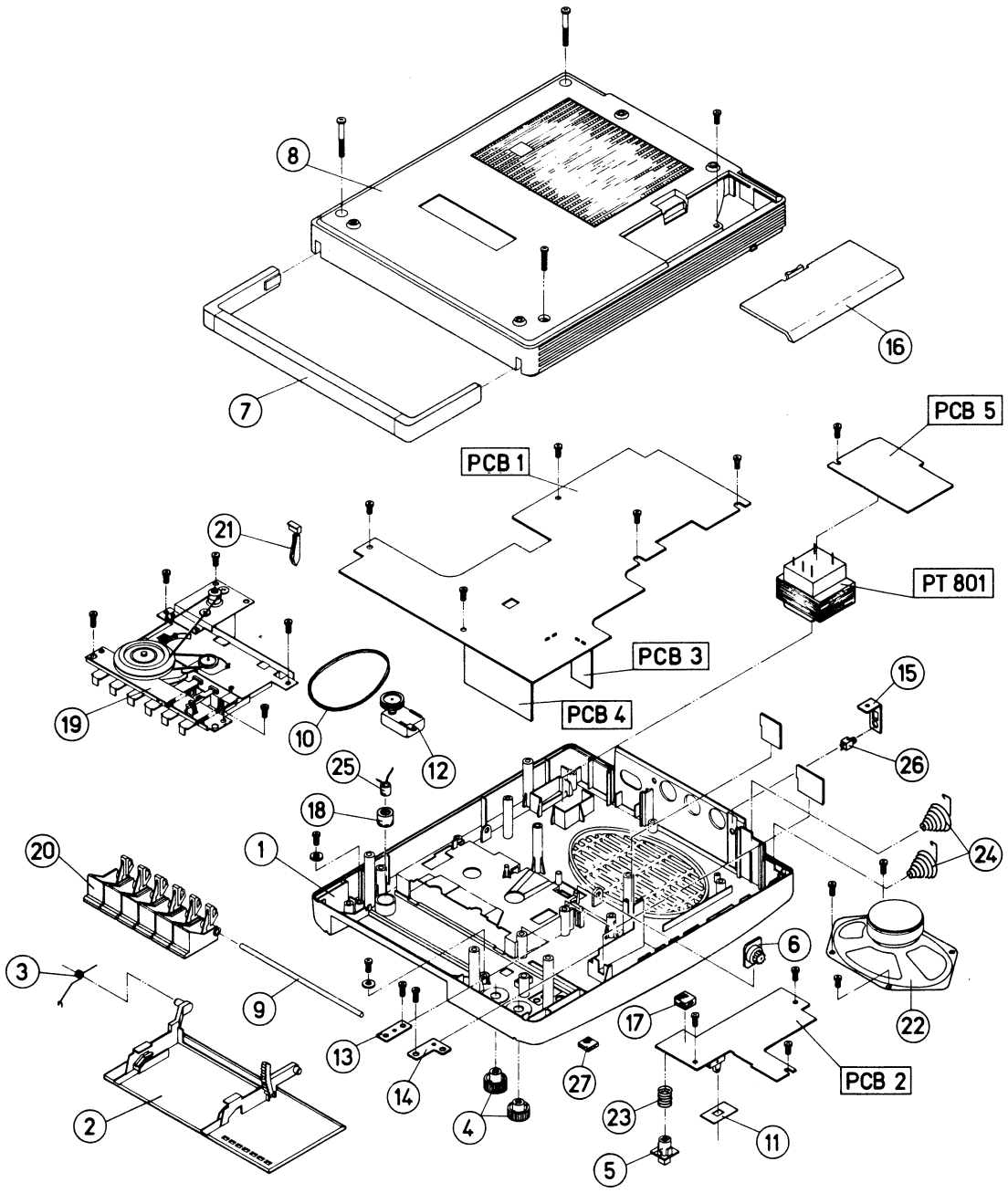


LA 3161





INTERCONNECTING WIRING DIAGRAM


8
7
16
PCB 5
PCB 1
21
PT 801
PCB 3
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PCB 4
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24
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17
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14
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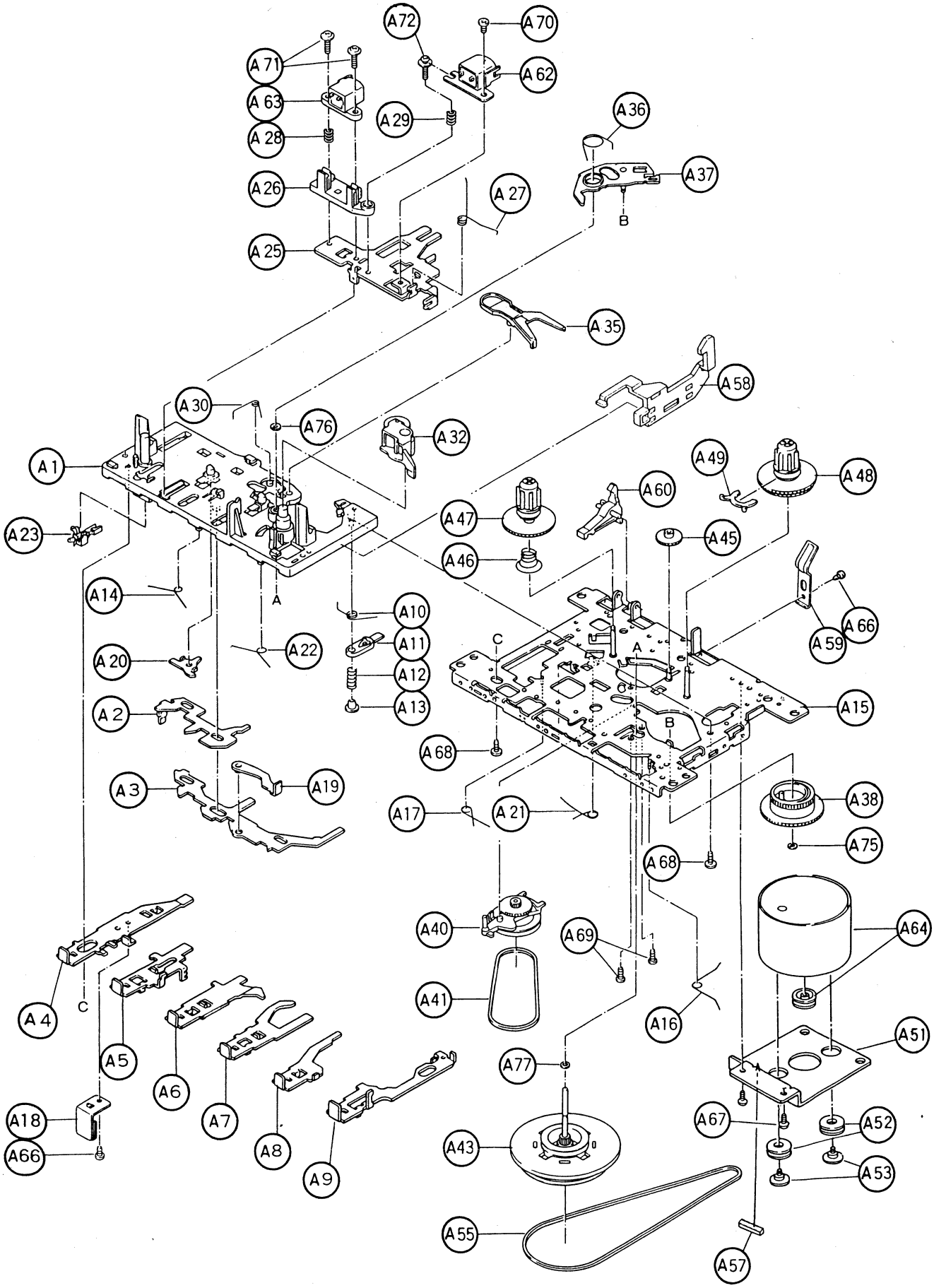
PCB 2
23
4
11
2
5

Pos.-Nr. Ref. No. No. de pos.	Bestell-Nr. Part No. No. de comm.	Pos.-Nr. Ref. No. No. de pos.	Bestell-Nr. Part No. No. de comm.
1	6134 50 70		
2	6135 50 79		
3	7358 55 97		
4	6328 07 87		
5	6328 07 88		
6	7522 02 14		
7	6341 49 72		
8	6123 09 65		
9	7572 19 47		
10	7618 42 98		
12	6467 16 97		
13	8681 46 31		
14	8681 46 32		
15	8681 46 30		
16	6135 50 78		
19	5863 11 94		
20	6318 45 03		
21	4188 05 67		
22	4311 94 98		
23	7358 55 80		
24	7358 55 81		
25	4317 02 31		
26	4144 82 90		
PCB 1	6913 15 36		
PCB 2	6913 15 37		
PCB 3	6913 15 38		
PCB 4	6913 15 39		
PCB 5	6913 15 40		
PT 801	4511 34 44		


A72
A70
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A57

Pos.-Nr. Ref. No. No. de pos.	Bestell-Nr. Part No. No. de comm.	Pos.-Nr. Ref. No. No. de pos.	Bestell-Nr. Part No. No. de comm.
A 3	8318 56 74	A 64	4432 93 33
A 4	8318 56 75	A 72	7858 01 76
A 5	8318 56 76	A 75	7726 05 46
A 6	8318 56 77	A 76	7726 05 47
A 7	8318 56 78	A 77	7726 06 24
A 8	8318 56 79		
A 9	8318 56 82		
A 10	7358 55 89		
A 11	8681 46 39		
A 12	7358 55 88		
A 13	8681 46 37		
A 14	7358 55 90		
A 15	8318 56 70		
A 16	7358 55 92		
A 17	7358 55 93		
A 18	7358 55 84		
A 19	8318 49 75		
A 20	8681 46 38		
A 21	7358 55 95		
A 22	7358 55 91		
A 23	4188 05 68		
A 25	8318 56 81		
A 26	8681 46 35		
A 27	7358 55 87		
A 28	7358 55 85		
A 29	7358 22 27		
A 30	7358 55 94		
A 32	7538 34 05		
A 35	8318 56 80		
A 36	7358 55 96		
A 37	8318 56 71		
A 38	7525 12 85		
A 40	7424 01 48		
A 41	7618 42 99		
A 43	7518 41 22		
A 45	7525 10 78		
A 46	7358 22 32		
A 47	6253 42 20		
A 48	6253 42 19		
A 49	3656 33 76		
A 51	8318 56 73		
A 52	6552 23 41		
A 53	7858 01 63		
A 55	7618 43 01		
A 58	8681 46 36		
A 59	7358 22 34		
A 60	8681 35 38		
A 62	4335 93 97		
A 63	4337 91 91		

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Fax: ++41-1-8 44 15 47

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Fax service:++46-141-5 49 48